IN THE CLAIMS:

Claims 1-7, and 9-20 have been amended herein. All of the pending claims 1 through 21 are presented below. This listing of claims will replace all prior versions and listings in the application. Please enter these claims as amended.

1. (Currently Amended) A semiconductor device structure comprising an oxidation barrier, ~~said~~ the oxidation barrier comprising a doped metal or doped metal alloy layer co-deposited by electroless plating.

2. (Currently Amended) The semiconductor device structure of claim 1, wherein ~~said~~ the doped metal or ~~said~~ the doped metal alloy layer comprises at least one of platinum, rhodium, iridium, ruthenium, and palladium.

3. (Currently Amended) The semiconductor device structure of claim 1, wherein ~~said~~ the doped metal or doped metal alloy layer is boron doped.

4. (Currently Amended) The semiconductor device structure of claim 3, wherein boron comprises about 0.1% to about 5.0% by weight of ~~said~~ the doped metal or ~~said~~ doped metal alloy layer.

5. (Currently Amended) The semiconductor device structure of claim 1, wherein ~~said~~ the doped metal or doped metal alloy layer is phosphorus-doped.

6. (Currently Amended) The semiconductor device structure of claim 1, wherein ~~said~~ the doped metal or doped metal alloy layer has a thickness of about 500Å.

7. (Currently Amended) The semiconductor device structure of claim 1, wherein ~~said~~ the doped metal or doped metal alloy layer has a thickness of about 100Å.

8. (Original) A method of forming an oxidation barrier comprising co-depositing a doped metal or doped metal alloy layer by electroless plating over a semiconductor substrate.

9. (Currently Amended) The method of claim 8, further comprising forming a conductive structure over ~~said~~ the oxidation barrier.

10. (Currently Amended) The method of claim 8, further comprising forming a dielectric layer over ~~said~~ the oxidation barrier.

11. (Currently Amended) The method of claim 8, wherein ~~said~~ co-depositing comprises introducing at least part of ~~said~~ the semiconductor substrate into an aqueous metal solution comprising at least one metal salt and at least one reducing agent.

12. (Currently Amended) The method of claim 8, wherein ~~said~~ co-depositing comprises introducing at least part of ~~said~~ the semiconductor substrate into an aqueous metal solution comprising at least one reducing agent and at least one of platinum, rhodium, iridium, ruthenium, and palladium.

13. (Currently Amended) The method of claim 8, wherein ~~said~~ co-depositing comprises introducing at least part of ~~said~~ the semiconductor substrate into an aqueous metal solution comprising at least one metal salt and at least one of dimethylaminoborane, ~~a borohydride~~ borohydride, and hydrazine.

14. (Currently Amended) The method of claim 8, wherein ~~said~~ co-depositing comprises introducing at least part of ~~said~~ the semiconductor substrate into an aqueous metal solution comprising at least one metal salt and at least one substance that alters a grain structure of a metal of ~~said~~ the at least one metal salt.

15. (Currently Amended) The method of claim 8, wherein ~~said~~ co-depositing comprises forming an oxidation barrier comprising a boron-doped metal.

16. (Currently Amended) The method of claim 8, wherein ~~said~~ co-depositing comprises forming an oxidation barrier comprising a phosphorous-doped metal.

17. (Currently Amended) The method of claim 8, wherein ~~said~~ co-depositing comprises forming an oxidation barrier adjacent a conductive layer on ~~said~~ the semiconductor substrate.

18. (Currently Amended) An electroless plating bath for depositing an oxidation barrier on a semiconductor device structure, ~~said~~ the bath comprising at least one metal salt and at least one substance that alters a grain structure of a metal of ~~said~~ the at least one metal salt.

19. (Currently Amended) The electroless plating bath of claim 18, wherein ~~said~~ the at least one metal salt comprises a salt of at least one of platinum, rhodium, iridium, ruthenium, and palladium.

20. (Currently Amended) The electroless plating bath of claim 18, wherein ~~said~~ the at least one substance that alters ~~a~~ the grain structure of ~~a~~ the metal of ~~said~~ the at least one metal salt comprises at least one of dimethylamineborane, potassium borohydride, sodium borohydride, and hydrazine.

21. (Original) The electroless plating bath of claim 18, further comprising a complexing agent.